Access DB# 112657

SEARCH REQUEST FORM

Scientific and Technical Information Center

Art Unit: Phone Number 30	Examiner #: J. Grant Date: 1/4/2004 1476 Serial Number: 04/28/089 esults Format Preferred (circle): PAPER DISK E-MAIL		
**************************************	itize searches in order of need.		
Please provide a detailed statement of the search topic, and descri	f more than one search is submitted, please prioritize searches in order of need.		
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or tility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if nown. Please attach a copy of the cover sheet, pertinent claims, and abstract.			
Title of Invention:			
nventors (please provide full names):			
Earliest Priority Filing Date:			
For Sequence Searches Only Please include all pertinent information propriate serial number.	on (parent, child, divisional, or issued patent numbers) along with the		
See affached claims search required les spe for parable rebecure: a due case: Please Expedito,			
		so for somble telleen	Tell :
		De De	Q 14
		a del case: I lease	Gredilo,
V			
and the second of the second o			
·			
	•		
	, , , , , , , , , , , , , , , , , , ,		

TAFF USE ONLY Type of Search	Vendors and cost where applicable		
earcher: NA Sequence (#)			
earcher Phone #: AA Sequence (#)			
earcher Location: Structure (#) Date Searcher Picked Up: Bibliographic			
earcher Prep & Review Time: Fulltext			
Clerical Prep Time: Patent Family			
nline Time: Other			

PTO-1590 (8-01)

09/281089

=> file caplus COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE

TOTAL SESSION

ENTRY 0.63

0.63

FILE 'CAPLUS' ENTERED AT 06:01:59 ON 21 JAN 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 21 Jan 2004 VOL 140 ISS 4 FILE LAST UPDATED: 20 Jan 2004 (20040120/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s textile

75943 TEXTILE

97885 TEXTILES

L1

128127 TEXTILE

(TEXTILE OR TEXTILES)

=> s(iron oxide hydroxide or ferric hydroxide oxide or hydrated ferric oxide or goethite or lepidocrocite or limonite)

S(IRON IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system. For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> s iron(l)oxide(l)hydroxide

871747 IRON

10990 IRONS

872511 IRON

(IRON OR IRONS)

1442415 OXIDE

315845 OXIDES

1534995 OXIDE

(OXIDE OR OXIDES)

238454 HYDROXIDE

41334 HYDROXIDES

258965 HYDROXIDE

(HYDROXIDE OR HYDROXIDES)

L2

6084 IRON(L)OXIDE(L)HYDROXIDE

=> s ((iron(l)oxide(l)hydroxide or ferric(l)hydroxide(l)oxide or hydrated(l)ferric(l)oxide))

871747 IRON

10990 IRONS

872511 IRON

(IRON OR IRONS)

1442415 OXIDE

315845 OXIDES

1534995 OXIDE

```
238454 HYDROXIDE
          41334 HYDROXIDES
         258965 HYDROXIDE
                   (HYDROXIDE OR HYDROXIDES)
           6084 IRON(L)OXIDE(L)HYDROXIDE
          67319 FERRIC
              1 FERRICS
          67320 FERRIC
                  (FERRIC OR FERRICS)
         238454 HYDROXIDE
          41334 HYDROXIDES
         258965 HYDROXIDE
                  (HYDROXIDE OR HYDROXIDES)
        1442415 OXIDE
        315845 OXIDES
        1534995 OXIDE
                  (OXIDE OR OXIDES)
           1339 FERRIC(L) HYDROXIDE(L) OXIDE
          56502 HYDRATED
              1 HYDRATEDS
          56503 HYDRATED
                  (HYDRATED OR HYDRATEDS)
          67319 FERRIC
              1 FERRICS
         67320 FERRIC
                  (FERRIC OR FERRICS)
       1442415 OXIDE
        315845 OXIDES
       1534995 OXIDE
                  (OXIDE OR OXIDES)
            407 HYDRATED (L) FERRIC (L) OXIDE
L3
           7038 ((IRON(L)OXIDE(L)HYDROXIDE OR FERRIC(L)HYDROXIDE(L)OXIDE OR
                HYDRATED (L) FERRIC (L) OXIDE))
=> s goethite or lepidocrocite or limonite
          8626 GOETHITE
           261 GOETHITES
          8646 GOETHITE
                  (GOETHITE OR GOETHITES)
          1323 LEPIDOCROCITE
            24 LEPIDOCROCITES
          1326 LEPIDOCROCITE
                  (LEPIDOCROCITE OR LEPIDOCROCITES)
          3772 LIMONITE
           187 LIMONITES
          3839 LIMONITE
                  (LIMONITE OR LIMONITES)
         12464 GOETHITE OR LEPIDOCROCITE OR LIMONITE
L4
=> s aluminum(l)oxide(l)hydroxide
        818627 ALUMINUM
           292 ALUMINUMS
        818687 ALUMINUM
                  (ALUMINUM OR ALUMINUMS)
       1442415 OXIDE
        315845 OXIDES
       1534995 OXIDE
                  (OXIDE OR OXIDES)
        238454 HYDROXIDE
         41334 HYDROXIDES
        258965 HYDROXIDE
                  (HYDROXIDE OR HYDROXIDES)
L5
          4537 ALUMINUM (L) OXIDE (L) HYDROXIDE
```

(OXIDE OR OXIDES)

```
(FILE 'HOME' ENTERED AT 06:00:23 ON 21 JAN 2004)
     FILE 'CAPLUS' ENTERED AT 06:01:59 ON 21 JAN 2004
         128127 S TEXTILE
L1
L2
           6084 S IRON(L)OXIDE(L)HYDROXIDE
L3
           7038 S ((IRON(L)OXIDE(L)HYDROXIDE OR FERRIC(L)HYDROXIDE(L)OXIDE OR H
L4
          12464 S GOETHITE OR LEPIDOCROCITE OR LIMONITE
L5
          4537 S ALUMINUM (L) OXIDE (L) HYDROXIDE
=> s 11 and 13 and 14 and 15
             1 L1 AND L3 AND L4 AND L5
L6
=> d l6 bib,abs
     ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
L6
     1999:467977 CAPLUS
AN
    131:103477
DN
TI
     Textile surface coatings of iron oxide and aluminum oxide
IN
    Kuhn, Hans H.; Kang, Peter K.
PA
    Milliken & Co., USA
SO
    U.S., 8 pp.
     CODEN: USXXAM
DT
    Patent
LA
   English
                     KIND DATE APPLICATION NO. DATE
FAN.CNT 1
     PATENT NO.
                 KIND DATE
PI US 5928720 A 19990727
PRAI US 1998-7687 19980115
                                          US 1998-7687 19980115
    A method of coating a textile substrate comprises (a) contacting
     a textile substrate with an aq. soln. of a ferrous or
     ferric salt and salt of Al at pH .apprx.2.5 or greater, wherein
     the aq. soln. optionally comprises a compd. which produces ammonia by
     hydrolysis in aq. soln., a buffering and pH controlling system, and a
     dispersing agent; (b) heating the soln. to .apprx.50.degree. to
     .apprx.100.degree.; (c) hydrolyzing and oxidizing the ferrous ion, or
    hydrolyzing the ferric ion, to form an iron (III)
     oxide hydroxide and hydrolyzing the Al ion to form an
     aluminum oxide hydroxide, nucleating the
     iron (III) oxide hydroxide and
     aluminum oxide hydroxide in situ at the
     surface of the substrate, wherein the oxide hydroxides
    are present as particles which are sub-colloidal in size, thereby forming
    a substantially amorphous coherent iron (III) oxide
    hydroxide/aluminum oxide hydroxide
     coating on the substrate surface; wherein the resultant rates of
    adsorption onto the substrate surface of the oxide
    hydroxides are greater than the resultant rates of formation of
    the same oxide hydroxides. The obtained substrate has
    very good color fastness, bacteriostatic, and virus removing properties
    and can be utilized as an water filtration article. Thus, a coating on a
    polyester fabric was prepd. from a soln. contg. Mohr's salt 15,
    A12(SO4)3.cntdot.18H2O 3.75, urea 10, formic acid 2.5, ammonium formate
    2.64, and Rhodacal BX-78 1.2 g at pH .apprx.3.1.
RE.CNT 26
             THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

=> log y
COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
41.43
42.06

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL
ENTRY SESSION
-0.69

STN INTERNATIONAL LOGOFF AT 06:08:06 ON 21 JAN 2004

slightly sol in hot water. Practically insol in acetone, petr ether, ether, chloroform.

3969. Ferric Hydroxide. Ferric hydroxide oxide; hydrated ferric oxide. FeHO, mol wt 88.86. Fe 62.85%, H 1.13%, O 36.01%. FeO(OH). Occurs in nature as the minerals goethite [a-FeO(OH)], lepidocrocite [7-FeO(OH)], and limogoethile [\(\alpha\)-reO(OH)], iepiaocrocue [\(\gamma\)-reO(OH)], and imminite [FeO(OH).nH\(\gamma\)O]. Other known allomorphic forms: \(\beta\)-FeO(OH); \(\delta\)-FeO(OH). The hydroxide Fe(OH)\(\gamma\) is not known. Prepn: Lux in Handbook of Preparative Inorganic Chemistry, vol 2, G. Brauer, Ed. (Academic Press, New York, 2nd ed., 1965) p 1499. Crystal structure of α -FeO(OH): Sampson, Acta Cryst. 25B, 1683 (1969). Review: Bernal et al., Clay Miner. Bull. 4, 15-30 (1959).

Red to brown powder or crystals. Loses H2O to form Fe₂O₃. d 3.4-3.9. Practically insol in water, alcohol; sol in mineral acids.

USE: In purifying water; as absorbent in chemical processing; as pigment; as catalyst.

• 3970. Ferric Hypophosphite. FeH₆O₆P₃; mol wt 250.83. Fe 22.27%, H 2.41%, O 38.27%, P 37.05%. Fe(H₂PO₂)₃. Prepn: U.S.D. 25th ed, p 573.

White or grayish-white powder. Odorless, tasteless. Sol in 2300 parts cold water, 1200 parts boiling water; more sol in water in presence of H₃PO₂; sol in warm coned solns of alkali citrates. Protect from light. Should not be heated or triturated with chlorates, nitrates, or other oxidizing agents. USE: Formerly as dietary supplement for phosphorus.

3971. Ferriclate Calcium Sodium. Pentaaqua[D-gluconato(4-)-O²,O⁴,O⁵]tetra-µ-hydroxydioxotriferrate(3-) calcium sodium (2:1:4); monocalcium tetrasodium bis[pentaaquatetra-µ-hydroxy[D-gluconato(4-)]dioxotriferrate(3-)]; Kelfer. C₁₂H₄₄CaFe₆Na₄O₃₆, mol wt 1231.62. C 11.70%, H 3.60%, Ca 3.25%, Fe 27.21%, Na 7.47%, O 46.77%.

THERAP CAT: Hematinic.

3972. Ferric Nitrate. FeN₃O₉; mol wt 241.87. Fe 23.09%, N 17.37%, O 59.54%. Fe(NO₃). Prepn: Gmelin's, Iron (8th ed.) 59, part B, 161-172 (1932).

Nonahydrate, pale-violet to grayish white, somewhat de-liquese crystals. mp 47°. Dec below 100°. d²¹ 1.68. Freely sol in water, alcohol, acetone; slightly sol in cold concd HNO₃. LD₅₀ orally in rats: 3.25 g/kg, H. F. Smyth et al., Am. Ind. Hyg. Assoc. J. 30, 470 (1969).

USE: As mordant in dyeing, weighting silks, tanning; as reagent in analytical chemistry; as corrosion inhibitor.

3973. Ferric Oxide. Ferric sesquioxide; jeweler's rouge. Fe₂O₃; mol wt 159.70. Fe 69.94%, O 30.06%. α -Form occurs in nature as the mineral hematite. y-Form occurs in nature as the mineral maghemite; prepd by dehydration of α -FeO(OH): Giovanoli, Brütsch, Chimia 28, 188 (1974). Prepn of a third allomorphic form, ε-Fe₂O₃. Schrader, Büttner, Z. Anorg. Allgem. Chem. 320, 220 (1963); Trautmann, Forestier, Compt. Rend. 261, 4423 (1965). Color and appearance of Fe₂O₃ are dependent upon the size and shape of the particles and the amount of combined water. Preparation and properties: Gmelin's, Iron (8th ed.) 59, part B, 63-94 (1932); Baudisch, Hartung, Inorg. Syn. 1, 185 (1939); Ullmann's Encyklopädie der Technischen Chemie vol. 6. 421-423 (1955); Bernal et al., Clay Miner. Bull. 4, 15-30

Note: The composition of the substance called δ -Fe₂O₃ is actually FeO(OH): Bernal et al., loc. cit.

Caution: Hematite dust causes benign pneumoconiosis: see L. T. Fairbanks, Industrial Toxicology (Hafner, New York, 2nd ed., 1969) pp 64-66.

USE: As pigment for rubb USE: As pigning paint; for iron ing agent for glass, precious me resistors and semiconductors; in catalyst; colloidal solns as stain (

3974. Ferric Oxide, Saccharate 39/4. Perric Oxide, Sacchardes sugar; Colliron I.V., Feolectic, Imann; Iviron; Neo-Ferrum; Rote 2.8-3.2% Fe. Prepn: U.S.D. 26th of soln contg 2% Fe suitable for 3.5 11 (10.00 %).

of soln contg 2% re suitable for it kinson, Lancet 256, 11 (1949).

Brown powder. Sol in water solns are unstable in the present solins are unstable as the present solins. Solns are unstable in the present mix with physiological saling.

THERAP CAT: Hematinic

3975. Ferric Phosphate (Peop 3975. Ferric Phosphate 18 FeO 37.03%, O 42.43%, P 20.54% Fe the minerals: beraunite cacount phosphosiderite, strengite. Prepart Boulle, Compt. Rend. 253,12699 (19. H₃PO₄: Cate et al., Soil Scil 88(3) phate rock: Vickery, U.S. patv2.91 Inc.); from mill scale and H.PO. pat. 3,070,423 (1962 to Chemetron)

Dihydrate, white, grayish white rhombic or monoclinic crystals on Loses water above 140°. d 2.87.1 Preslowly sol in HNO₃; readily sol in HCUSE: As food and feed supplement

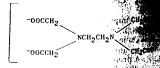
enrichment; as fertilizer.

3976. Ferric Pyrophosphate, Fe 29.98%, O 45.09%, P 24.94%, in strict in st

Nonahydrate, yellowish-white powder in water or acetic acid; sol in mineral USE: As catalyst; in fireproofing of the rosion-preventing pigments.

THERAP CAT: Hematinic.

3977. Ferric Sodium Edetate. (carboxymethyl)glycinato]](4—)]in N.D. (1-) sodium; sodium [(ethylenedinilini (1-); (ethylenedinitrilo)tetraacetic acce complex; ferric monosodium ethylene edetic acid sodium iron salt; sodium ac feredetate; Ferrostrane; Ferrostrene; 3 W NaO₄; mol wt 367.07. C 32.72% H 7.63%, Na 6.26%, O 34.87%. Prod. enediaminetetraacetic acid andviert McKinnie, J. Am. Chem. Soc. 82, 419



Crystals from water + ethanol. THERAP CAT: Iron source.

3978. Ferric Sodium Pyrophosphater rophosphate. Fe₄Na₈O₃₅P₁₀. Hydrates: The commercial product contains 15:6-1 52.5% P₂O₅.

White powder. Bulk density 1.4-1.6

acid. Insol in water.
USE: Food enrichment. Less prope than orthophosphates. ा नामह

3979. Ferric Subsulfate Solution.

soln; Monsel's soln. Approx. Fe. Oth. FeSO₄ and HNO₃: U.S.D. 25th ed. Reddish-brown liquid. Almost odds astringent taste. Acid to litmus. 1.548. Miscible with water, alcohold